

WELAKA NATIONAL FISH HATCHERY NEWS

Nov— Dec 2016



Welaka Wildlife Fact:

A piebald deer has a spotting pattern of large asymmetrical white and black or brown patches. A genetic variation (defect) produces the piebald condition in whitetail deer, not parasites or diseases. Check with your local wildlife agency before setting your gun sights on these unique looking deer.

Welaka NFH Conducts Fish Welaka National Fish Hatchery Begins New Recovery Program

The Suwannee Moccasinshell Mussel (SMS) is endemic to the Suwannee River Basin which includes the Withlacoochee and Santa Fe Rivers. Threats to the SMS such as pollution and habitat degradation led to the SMS being listed as Federally Threatened in October 2016. In mid-November, staff from Welaka National Fish Hatchery (NFH) met with the Panama City Ecological Service Field Office, U.S. Geological Survey - Wetland and Aquatic Research Center (WARC), and Florida Fish and Wildlife Commission (FWC), to discuss starting a recovery program for the SMS. Captive propagation was considered crucial for the recovery of the mussel species, so Welaka NFH began designing an aquarium system that would allow us to quickly begin propagation and culture efforts at the hatchery. After the aquarium system was completed, hatchery staff went to local streams and collected 26 Blackbanded Darters, which are known host fish for the SMS, and transported them back to the hatchery.

On 14 December, hatchery staff met with FWC staff at Branford, FL, on the Suwannee River, where a total of seven SMS were collected. Two of the seven SMS were gravid females that were then taken back to Welaka NFH. At the hatchery, staff collected the mussel larvae, called glochidia, and used them to inoculate the darters. The glochidia will undergo a metamorphosis while attached to the gills of the darters. Once that metamorphosis is complete, the mussels will detach from the fish and will settle to the bottom of the aquaria. At this point, the mussels will be harvested from the aquaria and will be placed in a few different culture systems to determine which one works best for growing out SMS. It is the goal of this first years production to grow the mussels large enough to where next year they can be used to test the water quality and habitat of potential reintroduction sites within the SMS's historic range.



Top Left: Electrofishing for Blackbanded Darters to use as host fish for the Suwannee Moccasinshell.

Bottom Left: Tony Brady shows off a Suwannee Moccasinshell collected from the Suwannee River.

Above: The arrow points to the gills of the Suwannee Moccasinshell that is brooding glochidia.



Mayport Elementary Coastal Sciences Academy Visits Welaka NFH

The Mayport Elementary Coastal Sciences Academy located in Atlantic Beach, FL is a school which designs their work around developing environmental stewards. Each year, from Kindergarten to 5th Grade, they have a specialized unit that they build their lessons around. While they focus on coastal environments they know that freshwater streams all flow towards the oceans, so they expose the students to freshwater issues as well. Throughout the course of the year they do two fish in the class room aquaculture projects, one is Rainbow Trout in the Classroom and the other is Striped Bass in the Classroom. The school obtains either egg or fry of these species and cultures them to a size that they can release to the

wild. The Striped Bass they get from Welaka National Fish Hatchery, so the teachers include a field trip to the hatchery as part of their program. On 7 November, the school came to visit the hatchery with 75 kids. During this visit, the kids got to see Atlantic Sturgeon being floy tagged, weighed, and measured. The students also got introduced to the world of freshwater mussel culture. The life cycle of freshwater mussels was a new experience for the teachers as well and they were thrilled that Welaka NFH has something new to offer their classes in the future in addition to the high quality fish culture they have come to expect from the hatchery staff.



Top left: Randall Talbott shows students how to measure the sturgeon.

Bottom Left: Tony Brady give a slideshow about the freshwater mussel life history.

Below: Andy Jackson show the students the protruding mouth of the sturgeon.



Hatchery Raceways Get Upgraded Hardwire

Welaka National Fish Hatchery has four outdoor raceways that are used for sturgeon culture and for short term holding of fish before they are transported off the hatchery. Many years ago these raceways were covered by building a roof over them and having wire covered panels wrapped around them to prevent birds and other predators from making an easy meal of the fish. Over the years, these wire covered panels have endured Florida's intense sun, rains, winds and an occasional hurricane or two, and all this punishment has caused the wire to rust, become brittle and break. During our down time this fall and winter,

Andy Jackson, Randall Talbott, and Allen Walker have been replacing the old wire with new PVC coated wire. Each panel has to be taken down, the old wire removed, the new wire cut to fit and attached to the panel, and then the panel is rehung around the raceway. The coated wire will help prevent the deterioration due to the extreme weather experienced here in Florida and should still be around after the next generation of hatchery employees has retired



Top Left: Andy Jackson and Randall Talbott remove old wire off of one panel.

Bottom Left: The guys remove additional panels so that the wire can be replaced.

Below: Newly wired panels are hung by the raceway with care. In hopes that fish season will soon be near.

